Apply incremental loads at a uniform rate such that approximately one-half hour is required to establish the total design load condition. Measure and record the deflections five minutes after loads have been applied. The maximum deflection due to design live load (deflection measured in step (iii) minus step (ii)) shall not exceed L/180, where L is a clear span measured in the same units.

(iv) Continue to load truss to dead load plus 1.75 times the design live load. Maintain this loading for 12 hours and inspect the truss for failure.

(v) Remove the total superimposed live load. Trusses not recovering to at least the L/180 position within 12 hours shall be considered as failing.

(2) *Uplift loads.* This test shall only be required for truss designs which may be critical under uplift load conditions.

(i) Measure and record initial elevation of the truss in an inverted test position at no load. Bottom chord of the truss shall be mounted in the horizontal position.

(ii) Apply the uplift load as stated in § 3280.305(c) to the bottom chord of the truss. Measure and record the deflections 5 minutes after the load has been applied.

(iii) Continue to load the truss to 1.75 times the design uplift load. Maintain this load for 3 hours and inspect the truss for failure.

(iv) Remove applied loads and within three hours the truss must recover to at least L/180 position, where L is a clear span measured in the same units.

(d) *Destructive test procedure.* (1) Destructive tests shall be performed on three trusses to generally evaluate the truss design.

(2) Noting figure A–1, apply the load units to the top chord of the truss assembly equal to full dead load of roof and ceiling. Measure and record deflections. Then apply load and record deflections in ¼ design live load increments at 10-minute intervals until 1.25 times design live load plus dead load has been reached.

(3) Additional loading shall then be applied continuously until failure occurs or the factor of safety times the design live load plus the dead load is reached.

(4) Assembly failure shall be considered as design live load deflection greater than the limits set in § 3280.305(d), rupture, fracture, or excessive yielding.

(5) The assembly shall be capable of sustaining the dead load plus the applicable factor of safety times the design live load (the applicable factor of safety for wood trusses shall be taken as 2.50).

(e) Trusses qualifying under the nondestructive test procedure. Tests § 3208.402(c) (1) and (2) (when required), shall be subject to a continuing qualification testing program acceptable to the Department. Trusses qualifying under the destructive test procedures, Tests § 3280.402 (c)(2) (when required), and (d), shall be subject to periodic tests only.

[40 FR 58752, Dec. 18, 1975, as amended at 42 FR 961, Jan. 4, 1977. Redesignated at 44 FR 20679. Apr. 6, 1979, as amended at 58 FR 55008, Oct. 25, 1993]

§ 3280.403 Standard for windows and sliding glass doors used in manufactured homes.

(a) *Scope.* This section sets the requirements for prime windows and sliding glass doors except for windows used in entry doors. Windows so mounted are components of the door and thus are excluded from this standard.

(b) *Standard.* All primary windows and sliding glass doors shall comply with AAMA 1701.2–95, Voluntary Standard Primary Window and Sliding Glass Door for Utilization in Manufactured Housing, except the exterior and interior pressure tests must be conducted at the design wind loads required for components and cladding specified in § 3280.305(c)(1).

(c) *Installation.* All primary windows and sliding glass doors shall be installed in a manner which allows proper operation and provides protection against the elements (*see* § 3280.307).

(d) *Glass.* (1) Safety glazing materials, where used, shall meet ANSI Z97.1–1984, ''Safety Performance Specifications and Methods of Test for Safety Glazing Materials Used in Buildings.''

(2) Sealed insulating glass, where used, must meet all performance requirements for Class C in accordance

with ASTM E 774–97, Standard Specification for the Classification of the Durability of Sealed Insulating Glass Units. The sealing system must be qualified in accordance with ASTM E 773–97, Standard Test Methods for Accelerated Weathering of Sealed Insulating Glass Units. Each glass unit must be permanently identified with the name of the insulating glass manufacturer.

(e) *Certification.* All primary windows and sliding glass doors to be installed in manufactured homes must be certified as complying with AAMA 1701.2–95. This certification must be based on tests conducted at the design wind loads specified in § 3280.305(c)(1).

(1) All such windows and doors must show evidence of certification by affixing a quality certification label to the product in accordance with ANSI Z34.1–1993, Third-Party Certification Programs for Products, Processes, and Services.

(2) In determining certifiability of the products, an independent quality assurance agency shall conduct preproduction specimen tests in accordance with AAMA 1701.2–95. Further, such agency must inspect the product manufacturer's facility at least twice per year.

(f) *Protection of primary window and sliding glass door openings in high wind areas.* For homes designed to be located in Wind Zones II and III, manufacturers shall design exterior walls surrounding the primary window and sliding glass door openings to allow for the installation of shutters or other protective covers, such as plywood, to cover these openings. Although not required, the Department encourages manufacturers to provide the shutters or protective covers and to install receiving devices, sleeves, or anchors for fasteners to be used to secure the shutters or protective covers to the exterior walls. If the manufacturer does not provide shutters or other protective covers to cover these openings, the manufacturer must provide to the homeowner instructions for at least one method of protecting primary window and sliding glass door openings. This method must be capable of resisting the design wind pressures specified in § 3280.305 without taking the home out of conformance with the standards in this part. These instructions must be included in the printed instructions that accompany each manufactured home. The instructions shall also indicate whether receiving devices, sleeves, or anchors, for fasteners to be used to secure the shutters or protective covers to the exterior walls, have been installed or provided by the manufacturer.

[52 FR 4583, Feb. 12, 1987, as amended at 52 FR 35543, Sept. 22, 1987; 58 FR 55009, Oct. 25, 1993; 59 FR 2474, Jan. 14, 1994; 70 FR 72046, Nov. 30, 2005]

§ 3280.404 Standard for egress windows and devices for use in manufactured homes.

(a) *Scope and purpose.* The purpose of this section is to establish the requirements for the design, construction, and installation of windows and approved devices intended to be used as an emergency exit during conditions encountered in a fire or similar disaster.

(b) *Performance.* Egress windows including auxiliary frame and seals, if any, shall meet all requirements of AAMA 1701.2–95, Voluntary Standard Primary Window and Sliding Glass Door for Utilization in Manufactured Housing and AAMA Standard 1704–1985, Voluntary Standard Egress Window Systems for Utilization in Manufactured Housing, except the exterior and interior pressure tests for components and cladding must be conducted at the design wind loads required by § 3280.305(c)(1).

(c) *Installation.* (1) The installation of egress windows or devices shall be installed in a manner which allows for proper operation and provides protection against the elements. (*See* § 3280.307.)

(2) An operational check of each installed egress window or device shall be made at the manufactured home factory. All egress windows and devices shall be openable to the minimum required dimension without binding or requiring the use of tools. Any window or device failing this check shall be repaired or replaced. A repaired window shall conform to its certification. Any repaired or replaced window or device shall pass the operational check.